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Ms. Cindy Bladey
Chief, Rules, Announcements, and Directives
Branch (RADB)
Office of Administration
Mail Stop: TWB-05-B01M
U.S. Nuclear Regulatory Commission
Washington DC, 20555-0001

RE: Consideration of Environmental Impacts of Temporary Storage of Spent Fuel
After Cessation of Reactor Operation
Docket No.: NRC-2012-0246

Dear Ms. Bladey:

This firm represents the City of Red Wing, Minnesota (the "City") with respect to the above-referenced matter. We submit these comments on behalf of the City to the Nuclear Regulatory Commission (the "NRC" or "Commission") in response to its request for feedback or comments on the scoping decision of the Environmental Impact Statement (the "EIS") being prepared by the Commission in support of or as a substitute for its Waste Confidence Decision and/or Waste Confidence Rule. At the outset, the City thanks the Commission for the opportunity to submit comments to the proposed scoping of the EIS. The City looks forward to working with the Commission, its staff, and consultants to address the very important issue of the storage of spent fuel from nuclear reactors across the United States.

By way of background, the City is a host community to the Prairie Island Nuclear Generating Plant (the "PINGP"), which is a dual reactor 1118 MW facility. Immediately adjacent to the PINGP, sits approximately twenty-nine (29) individual dry casks in which are stored spent nuclear fuel rods. In addition, the PINGP spent fuel pool, like all others, contains spent fuel that has been unloaded from the reactors and is waiting to be stored or transferred into the casks. It is anticipated that at the end of the life of the PINGP, which is currently scheduled in 2033 and 2034, and following the appropriate holding or cooling off period for the rods, there will be approximately ninety-nine (99) casks located on the independent spent fuel storage system (the "ISFSI").¹ This does not include any casks or

¹ The precise number of casks that will hold spent fuel has not yet been determined since the PINGP is using a different fuel assembly that burns hotter and longer in the reactor and thus requires replacement or refueling at a different rate. Accordingly, the number of casks originally calculated as being necessary for

other storage systems for other classes of waste originating from the decommissioning of the PINGP.

The operator of the PINGP, and the associated ISFSI, is Northern States Power Company d/b/a Xcel Energy (the "Company"). The City and Company have worked together over the years to first site and thereafter solve many of the issues associated with the PINGP. The City has been supportive of the Company and its efforts to maintain not only the PINGP but the ISFSI in a reasonable and safe fashion. However, the City, like many other host communities, is now facing a scenario that it did not, under any set of circumstances, envision: the failure of the Federal Government to honor its contractual agreement with the Company and remove the spent fuel from the PINGP to either an interim storage facility or a long-term or permanent repository. Despite any other contention or disagreement with the Company, the City stands resolute with the Company that the continued storage of spent fuel outside of the PINGP is not a workable solution. With no plan or process in place for its removal, storage, which was to be short (if at all) has become, for all practical purposes, permanent.

The City, as the host city to the PINGP and the ISFSI, is uniquely situated to provide input on the proposed EIS by the Commission. The City, in all respects, is a first responder to any incident at the PINGP or the ISFSI. It is obligated, under both federal and state law, to annually provide reasonable assurance that it has the necessary facilities and infrastructure to meet and respond to any incident at either facility. The City, then, is obligated to maintain a steady state of readiness through its investment in and maintenance of the necessary equipment and personnel, as well as the necessary buildings to locate the same, in order to meet its obligations. It has and continues to do so despite the continued reduction of revenue to the City from the Company for taxes on the PINGP. The City, in turn, has been forced to shift this burden to its other taxpayers who, since 1996, have seen their property taxes increase over 188%.

Thus, the City is uniquely qualified to provide comments and observation relative to the proposed EIS. In addition, as outlined below, the actual ISFSI is located within the boundaries of the City. Thus, the City is and will continue to be impacted by the spent fuel that is located in the ISFSI.

The comments of the City on the scoping of the proposed EIS will focus not only on the overall scope and process, but will identify items and areas that are or should be included within the analysis. The City's comments take into account the general direction of the Commission set forth in the Federal Register, Volume 77, Number 207, Page 65137, et al. In addition to the comments, the City remains available to provide any additional information or backup to the same or otherwise further participate in this EIS process.

end of life storage of spent fuel may be lower or higher depending on often refueling occurs and how many fuel assemblies can be placed into the casks. Though the casks are larger to accommodate the larger fuel assemblies, it is unknown if the new casks will hold the same number of spent fuel assemblies as the casks that are currently being used.

1. **The Scope Should Be 50 Years, 100 Years, and No-Build Scenario After Spent Fuel is Placed into Dry Storage.** At the outset of the November 14, 2012, public webcast on the proposed scope of the EIS, the Commission's representatives provided a framework for this analysis that would focus on three different timeframes or scenarios: removal of spent fuel within fifty years after cessation of a nuclear power plant's operation; removal of spent fuel within one hundred (100) years after cessation of a nuclear power plant's operation; and one where spent fuel is not removed from the ISFSI but instead is stored on-site for an indefinite period of time. Storage, it is assumed for this comment, is in some sort of dry cask storage. The City believes that the approach of waiting until after the cessation of operations misses the fundamental focus of the EIS. The focus of the EIS, as argued in more detail below, is on the ability of the ISFSI system itself to maintain the spent fuel for a stated period of time. The EIS focus will evaluate, among other things, leaks, spills, and whether releases from the ISFSI focusing on a mixture of different factors, one of which is time and exposure to the elements and natural environment that the ISFSI is located. The EIS should evaluate the time, effort, and response necessary to respond to such an incident but also its potential and real impact on the environment – human and natural. The EIS should also take into account the continued, indefinite presence of the ISFSI and what that means for host communities like the City.

The appropriate timeframe, then, is not the cessation of activities at the nuclear power plant but rather is the time spent fuel actually sits in the casks or other storage containers that make up the ISFSI. So, for example, with casking at the PINGP beginning in 1994, the fifty year mark will be 2044, which is less than ten years after the PINGP is scheduled to be decommissioned. The spent fuel pool will still be used at this time (and will remain active for another five (5) years, at least). Under the scenario proposed by the Commission, an examination of the casks for the PINGP would not occur until they are almost ninety (90) years old. This is well beyond the fifty (50) to one hundred (100) year mark set by the Commission. Accordingly, the better mark is from the date that spent fuel goes into dry cask storage.

Regarding storage in spent fuel pools, the City addresses that issue below. However, haste should be made towards getting spent fuel out of pools and into dry cask storage. And then immediate removal from the current storage outside of the PINGP.

In making this comment, the City understands it contradicts the former Waste Confidence Decision, which also focused on spent fuel storage after cessation of activities. However, the Waste Confidence Decision was built on a series of assumptions all of which centered on the spent fuel being removed in a timely fashion. That no longer is the case. If the analysis is going to be on storage, then the beginning point is naturally when storage starts.

2. **The Scope Should Not Be Limited to Those Factors Cited by the D.C. Circuit Court in its June 8, 2012, Decision.** The Commission should not limit the EIS and its analysis to the three factors identified by the D.C. District Court in its June 8,

2012, Decision in *New York v. NRC*, 681 F.3d 471 (DC Cir. 2012). The overall scope of the EIS should include all factors associated with the continued storage of spent fuel outside of nuclear power plants. This method is reasonable and would lead to a more thorough and robust examination of factors and how the ISFSI's impact the environment in which they are located.

Focusing only on the factors cited by the D.C. District Court would lead to a truncated EIS that would not meet the requirements for the same under NEPA. An inclusive EIS will not cause or lead to any delay in meeting the timeline proposed by the commission.

3. Local Factors Must Be Taken into Consideration. In order to have a full and robust EIS, the Commission should take into consideration local factors. While the Commission may choose to regionalize these considerations or group these for similarly situated ISFSI's at power plants, it must provide analysis and include site specific information. The purpose behind this would be, again, to fully evaluate the impact on the ISFSI in a particular environment. The failure to do so will frustrate the principals upon which NEPA was built. The variations between regions or individual sites is too broad to not take into some account. For example, the freeze-thaw cycle that the City experiences annually has a much greater toll on the cement used in dry cask storage than one experienced in Illinois and/or South Carolina.

Another example is the unique location of the PINGP's ISFSI: it sits in a flood plain at the headwaters of the Mississippi River. The ISFSI is also located at the confluence of the Mississippi and a local river, the effect of which literally reverses the flow of the Mississippi. This is not only a unique feature but a very important one considering that, in the event of an incident at the ISFSI, the impact would be not simply local but nationally as the waters of the Mississippi would be impacted downstream.

Thus, in order to have a reasonable and balanced EIS, local factors must be considered.

4. The EIS Should Be Able to Cite to and Rely on Other Environmental Assessments or EIS's. In order to meet the timeline imposed by the Commission, the proposed EIS should be able to cite to and incorporate other EIS's or EA's and the conclusions that they reach. However, if this is done, the Commission, while trying to meet the 2014 deadline, should be flexible with that date. Reliance on other EIS and EA should not replace analysis or act as a shortcut. Information must be relevant and precise, and be verified. For example, since one of the focuses of the EIS is on the leaks and releases from the systems, the Yucca Mountain EIS no-build scenario could be used. However, that EIS is over ten (10) years old and technology may have changed. Accordingly, the information must be verified and/or updated.

5. Structural Integrity; Transfer. The EIS needs to take into account the structural integrity of the various spent fuel storage systems that are utilized around the country.

The EIS should identify and incorporate the product information from the manufacturers of these storage systems. This information would include, but not be limited to, the warranty of the product, the intended useful life, as well as a history of any leaks, releases, or other issues associated with each individual system. This information will provide guidance to what the potential useful life of each system and when, in order to minimize any risks associated with the same, a transfer from one cask to another is required.

In addition to identifying when transfers are or should be necessary, the EIS should address how this transfer is to be undertaken under both normal or routine circumstances and in the event of an incident {FN- This should also include a description and analysis on how this is going to be done since the spent fuel pool and its containment facility is removed as part of the decommissioning process. As an alternative, the EIS should analyze maintaining the spent fuel pool and its containment facility in place for routine or normal transfers and those that are necessitated by an incident. As part of this alternative analysis, the EIS should address the costs associated with the maintenance, upkeep and replacement of the same} . As part of the decommissioning process, a spent fuel pool or a similar facility will, following the removal of all spent fuel from the pool, be destroyed. With the requirement that transfers will occur during the course of time that is being examined by the EIS, the costs associated with the construction and maintenance of a new spent fuel or other transfer facility should be identified.

Finally, the EIS should review the history of transfers to date. What has been attempted and what is the result. This will allow for an estimated valuation of certain costs associated with the transfer as well as the success and likelihood of one once it is undertaken.

6. Institutional Controls. The EIS should address the issue of institutional control – especially in the form of revenue. How is there going to be sufficient revenue to manage spent fuel storage systems when the plant shuts down and the ratepayers are no longer receiving the benefit of electricity being produced through nuclear energy? The cost, then, of continued storage, maintenance, transfer, and ultimate disposition may fall on ratepayers or citizens of the state that did not have a stake at all when the spent fuel was being generated.

The importance of this is underscored by two significant facts: first, the Federal Government has failed to meet its obligation in a timely fashion (or not at all) and there does not appear to be a plan for the same in the very near future. Second, the spent fuel must be safely and securely stored for centuries. The no-removal scenario assumes that this is not going to be removed so an analysis of institutional control must be part of the EIS.

Finally, another important consideration (and one that underlies the entire need for the EIS) is emergency response. In the event of an incident, what are the necessary steps to contain the incident and remediate against the impact of the same? If there is going to be storage of the spent fuel for 50 or 100 years or not removed at all, how are the entities that are responsible for emergency response going to be supported to maintain the necessary readiness? The normal tax revenue stream from the nuclear power plant will be gone since it will no longer be operating. Instead it will be replaced by the tax revenue stream from the ISFSI which will have little, if any, tax revenue.

The EIS should take this into account and analyze the same. It should do so by identifying the source of income that is to flow to host cities like Red Wing including the diminished amount of tax revenue that is generated from the ISFSI. The EIS should examine, as an alternative, a dedicated source of revenue that will allow for the City to continue to maintain the necessary state of readiness to respond to an incident at the PINGP's ISFSI (including an incident at the spent fuel pool and its facility during any transfer).

Accordingly, institutional controls must be part of the EIS in order to fully understand the impact or the time periods identified by the Commission.

7. **Lessons from Fukushima.** The EIS should, to the extent it can at this early date, draw lessons and understandings from Fukushima. This is especially true as it relates to spent fuel located within pools and the potential for fire of the same. The EIS should not only consider causation but should focus on the remedial or mitigation efforts following the event. It should examine this in light of the current emergency response plans as well as any emergency response plans that are going to be in place following the cessation of electrical production at the nuclear power plants. There will be a time in which spent fuel, following the cessation of production, will continue to be stored in spent fuel pools awaiting final disposition of dry cask storage.² An estimated cost of the potential response plans should be identified and folded into the institutional control analysis of the EIS.

8. **Environmental Factors and Impact.** A core concept of the EIS is compliance with NEPA. To do so, the EIS must take into account the effect that continued storage will have on the natural environment as well as what this impact would be in the event of an incident. The EIS should evaluate the cumulative effect of continued storage which would include but not be limited the total natural release of radiation from a fully functioning ISFSI and the impact in the event that there is a release. This should include an analysis of contamination of ground water tables (another local factor related to seepage and absorption), river and other water ways. This also should be examined in

² For those facilities that do not yet have dry cask storage, the EIS should examine the risks associated with continued storage of spent fuel in pools and, in an effort to mitigate any adverse impacts from an event, indicate or advocate that dry cask storage be put in place immediately.

light of a diminished or no response to an incident and attempt to identify what that impact would be on containment or remediation.

9. Socioeconomic Factors and Impact. The EIS, consistent with NEPA principals, should address a number of different socioeconomic factors that the continued dry cask storage will have on human environment. This includes not only the City but also the Prairie Island Indian Community, which is located right next to the PINGP and its ISFSI. Geographically, the City is limited by the bluffs of the Mississippi River to the south and west and by the Mississippi River on the east. The only actual, and logical, growth pattern for the City, especially its business and manufacturing district, is to the north. This expansion is directly where the spent fuel is located and its continued presence will disrupt and stunt the City's natural growth.

The City, which is one of the oldest cities in the State of Minnesota, has a rich and diverse manufacturing and business community that includes the historic Red Wing Pottery and Red Wing Shoes to newer arrivals including Capital Safety and BIC. The PINGP, which was originally licensed for 20 years, is now licensed for 40 years. The spent fuel, which was never intended to be stored at the PINGP, is now stranded within the City limits indefinitely.

With this growing number of dry casks accumulating at the PINGP, a significant new burden has been placed upon the City. With the current and unprecedented uncertainty regarding the final disposition of spent fuel the City is greatly concerned about the spent fuel's current and future impacts. Additionally, as a result of the stranding of the spent fuel the City will be obligated to maintain a high level of public safety services. However, the City, the Company (should it retain the land), or any other owner will not be able to recapture and develop the area to its highest and best use. This will deprive the City of its natural growth and the potential tax revenue that will come from the same.

Moreover, the surrounding land will suffer. As development continues, the City will extend utilities into the area around the ISFSI. Typically, these costs are distributed among those properties that benefit from these improvements. However, the property that stores the spent fuel will not benefit from these utilities and the Company may even object to any assessment of the same. It is unfair to require other surrounding properties to absorb these costs. These costs should be included in or evaluated by the Company. This is the only reasonable method to mitigate against disproportionate and/or no development of that area.

In addition, it is highly unlikely that relocation or building activities will occur on any land that is in near proximity to the spent fuel. This is especially true where there is going to have to be transfers of the spent fuel assemblies from one cask to another. This again negatively impacts the City's ability to replace lost tax revenue, encourage further development of this area, or even prepare for the same through an extension of roads and other infrastructure. In short, this area will be unavailable for improvement to the City

until the spent fuel is removed. The only meaningful way to address these issues is to calculate how, in the absence of the stranded spent fuel, the land would have otherwise developed to its highest and best use and to afford for a reasonable and comparative property tax payment or payment in lieu of taxes to the City in such amount.

Finally, as roads, bridges, and other infrastructure are constructed and placed in service over the next 60, 100 and 200 years, the ISFSI will have to be accommodated. This will require going around it and departing from normal, customary planning and development patterns. The increased costs resulting from the engineering, routing and constructing of infrastructure in manner as to avoid the stranded spent fuel should be addressed and accommodated within the decommissioning fund. This may also have a negative impact on the commercial and potential passenger rail service that the City has or hopes to have as well as restrictions on its airport located across the Mississippi River in Wisconsin.

In order to fully evaluate the socioeconomic impacts of the continued storage of spent fuel within the City, it is important that the EIS start with a baseline and look at the socioeconomics of the City of Red Wing as well as the Prairie Island Indian Community, which sits adjacent to the PINGP and its ISFSI. The EIS would evaluate the current socioeconomic community and then determine what impact the proposed continued spent fuel storage would have on those communities. It should incorporate a firm economic analysis (including such factors as individual and business threshold analysis for a viable economic entities, economic activity overall), as well as income, employment, and taxes being generated.

In addition, it should evaluate the social and cultural aspects of the same by valuating population and demographic changes, changes in lifestyle, stability in the community, land use patterns, and public safety and health. It should then trend this information forward and analyze it in a both positive and negative assessment, including a number of other factors including agriculture, residential, government activities and expenditures, manufacturing and industrial, financial and real estate, as well as tourism and recreation. All of these are part of and should be included in the EIS as prescribed by NEPA.

10. Public Meetings and Purpose. As part of the EIS process, the Commission has indicated it will hold a series of public meetings. The City believes that one of these public meetings should be held in or near the City.

Again, on behalf of the City, I want to thank the Commission for the opportunity to submit comments on its behalf. As noted above, the City is uniquely situated to provide comments not only on the growing continued presence of dry cask storage at the PINGP's ISFSI, but also on the short and long-term impacts associated with the same.

As noted above, the City has concerns about the continued and indefinite presence of the spent fuel. It already has and will continue to have a material impact on the City

Ms. Cindy Bladey
January 2, 2013
Page 9

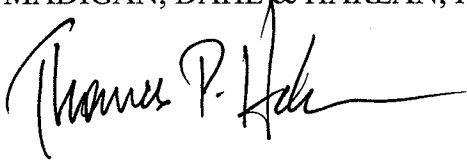
and will ultimately effect its growth under any of the scenarios proposed by the Commission. As a result, the City will be forced to continue to maintain the necessary readiness to respond to an incident at the ISFSI but at the same time be restricted with respect to actual growth revenue that occurs through expansion by the City.

On a final note, while the City, in its comments set forth above, intimates that there should be a more robust analysis of an emergency response plan, it firmly believes that such an analysis must occur. Without an analysis of the emergency response plan, there can be no containment or mitigation analysis as a result of any leak, spill, or other disruption of the spent fuel storage systems. Accordingly, any such analysis must include this as well as the existing and continued impact of the socioeconomic environment, human and natural, surrounding the ISFSI.

The City will be available for any further comment or discussion the Commission may have about these comments or any other matter associated with the same.

Very truly yours,

MADIGAN, DAHL & HARLAN, P.A.

A handwritten signature in black ink, appearing to read "Thomas P. Harlan", with a long horizontal flourish extending to the right.

Thomas P. Harlan

TPH/brc

cc: The City of Red Wing, Minnesota